

13 May 1970

to Roffman (cc Weisberg)

Howard:

Enclosed is the picture that you sent. I have seen it before, and many others of a similar nature. Thanks for sending it, though.

I have your 9 Feb letter to Wecht and his reply. Your letter is excellent, but Wechts is hardly a reply at all. The letter is so clearly phrased and suggests such revelant matters that I would have expected something that would either help you advance your thinking a little, or to refute it. It does neither. I imagine he is suggesting that there is nothing more to be said than you say, and it's encouraging to know that you have made no serious blunder, but a more detailed response on specifics would have been helpful.

I had not previously considered that "south @rassy knoll" meant the knoll on Commerce St. For reasons which I cannot explain I regarded Harold's references to this as meaning the area of the (Elm) grassy knoll near the underpass. The thought of a shot emanating from the south knoll never entered my mind.

I think it extremely unlikely, and that a case for it cannot be made on the basis of how you interpret the head wound. There are too many things that tend to refute what you think the head wounds may show. The fact, for example, that no one suggested that a sound from that direction was heard. Tague was the nearest witness to that place, and he surely would have noticed a considerable difference in the volume of sound. I believe that he did indicate that one of the shots did sound different from others, but nothing to suggest that that shot came from anywhere but in front of him.

Besides, the movement of JFK suggest a shot emanating from his right-front-- more front than right. The Elm knoll, perhaps near the underpass. But based on the movement alone it's not possible to be specific; one can only indicate a broad area. But I do not think that the Commerce knoll is part of that area.

I have suggested to you before, and again I recommend that you consider that you cannot presume a straight trajectory once a bullet strikes an object. It is quite possible for a bullet ~~xxxxxxx~~ and fragments thereof to be sharply diverted from a straight trajectory once ~~xxxxxx~~ in comes in contact with a body.

Cast bullets: As long as you are thinking in terms of cast bullets these days, let me tell you a bit about them.

Cast bullets are sold commercially only for revolver cartridges. Commercial bullets for cartridges used in ~~xxx~~ auto-loading pistols are full metal case.

There are no commercially produced cast bullets for rifles, and not many people cast their own rifle bullets. The reasons are chiefly that they are enormously troublesome to cast, and are enormously less efficient than jacketed bullets (I am talking now about jackets that leave a bit of lead exposed at the bullet nose.

For one thing, rifle bullets have to be cast from a relatively hard lead alloy, with a high percentage of ingredients that harden the lead. Soft lead fouls the barrel after a shot or two and the rifle becomes grossly inaccurate.

The hard lead, too, resists expansion and deformation, which makes it a less efficient killer.

And cast bullets cannot be fired at ~~very~~ the very high velocities that are necessary for efficient kills. High velocity needs great heat and pressure in the chamber and barrel; this tends to melt the lead and foul the bore. One can get somewhat higher velocities by using a gas-check, a little cup that encloses the base of a cast bullet, but the velocities are not comparable to those that can easily be achieved by jacketed bullets.

In comparison with readily available and fairly cheap ~~hunting~~ mushrooming ammo, cast bullets are so inefficient that a serious shooter would not even consider using them for hunting. They have no advantage whatever over commercially available rounds, and many serious disadvantages. A person who does a lot of plinking might wish to cast his own rifle ammo to save money-- I mean a lot of plinking, for otherwise the savings would be small-- might prefer cast bullets, but if he wants accuracy and killing power he buys soft-nose or hollow-point jacketed rounds and loads them into his cartridge cases. If he is shooting for "business", he would not use cast bullets.

A cast bullet would fragment quite readily if it hit a hard bone at fairly high velocity. They tend to be more brittle than regular bullets.

Do not interpret this as indicating that I encourage you to stop thinking in terms of cast bullets. On the contrary, I urge you to consider it. But at the same time try to learn more about them than you know, for they have very different ballistic properties from other bullets that you might read about. If you have questions, ask them. I may have a book or two to send you, though offhand I think what I have may not answer the sort of questions you have in mind.

I have to stop now.

Still,

P.S. to Harold: If you are interested, I give you my ^{firm} assurance that allegations that a non-military small caliber steel-jacketed bullet wounded one of the students at the Kent State massacre are phony. This info comes from Dr. Joseph W. Ewing, who is either very stupid or a conscious liar. His qualifications indicate that he is not stupid. I think it's a cheap trick to get people to believe that there might have been a sniper.